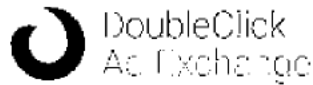


EXHIBIT 4
[FILED UNDER SEAL]

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Dynamic Revenue Share

go/drs-comms

IMPORTANT: We should only talk about the opt out and increasing or decreasing revenue share per query in order to maximize revenue - *DRS v1 and v2 are not external names, and we do not distinguish between versions externally.* The FAQ below are internal only both for buy- and sell-side, and should NOT be shared externally.

Go to [go/drs-optouts](#) if your publisher opted out of DRS to provide feedback.

UPDATE (July 30, 2018): We launched a new DRS model (tDRS). With tDRS we determine Google's revenue share before seeing buyer bids, and auctions will no longer clear below the floor in the RTB callout. We believe this change will make DRS more sustainable and better for buyers and publishers in the long run. Externally, we should not refer to DRS v1 / DRS v2 / tDRS; we should only refer to the feature as revenue share based optimizations

Authors: [REDACTED]

Created: 05/13/2016

Last Updated: 07/30/2018

Commercialization Meeting: DRX Indirect Commercialization

Overview section

Feature description	DRS is an optimization feature that increases publisher and Google revenue by dynamically changing the AdX sell-side revenue share so that more auctions end with a winning buyer. V1 decreased Google's revenue share to grow revenue overall. V2 adjusts Google's revenue share more aggressively, by decreasing and increasing the Google share on different impressions, to increase the number of AdX auctions with a winning buyer while always achieving the publisher's contracted revenue share (typically 80%) or higher for each billing period.
Value Proposition	DRS increases overall pub revenue in an automated way.
Target Group	All AdX publishers. AdSense pubs are not included.
Status	LAUNCHED
Release Dates	Feature flag will be launched in the AdX UI: June 14th, 2016 [DONE] Feature flag will start taking effect: August 1st, 2016 [DONE]

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Complexity	B+
Project Contacts	CL: [REDACTED] GSL: [REDACTED] PM: [REDACTED] Sales [REDACTED] [REDACTED] PTM: [REDACTED] Documentation: [REDACTED] Marketing: [REDACTED]

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0. Functional Signoff

Signoffs from cross-functional representatives confirming readiness of this comms doc for the upcoming launch phase.

Functional Area	Beta	General Availability
Services - Signoff	Y/N	Y/N
Sales - Signoff	Y/N	Y/N
Marketing - Signoff	Y/N	Y/N
PM / Eng - Signoff	Y/N	Y/N

Value Proposition, Publisher Impact & Benefits	Owner: Marketing, PM
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Background:

Our goal has always been to help publishers and advertisers thrive and create sustainable businesses. For many years Google has used optimization and machine learning techniques to improve the performance of our ads products, and now we're happy to share that we've been extending those techniques to DoubleClick Ad Exchange customers.

As programmatic buying has grown publishers have created complex yield management setups with cascading price floors, waterfalls, and even implementations that offer the same query repeatedly to multiple buyers just to find out the price they could pay. This can lead to lost revenue, increased user latency, and decreased advertiser performance. We think there are better ways to increase publisher yield.

By using machine learning optimizations we plan to help publishers reduce the complexity of their ad technology setups by helping them make the most revenue possible from DoubleClick Ad Exchange.

1. Value Proposition

- Revenue share based optimizations help publishers make more revenue in the Ad Exchange Open Auction by adjusting Google's revenue share up or down to increase the volume of impressions with a winning buyer while always achieving the publisher's contracted revenue share (typically 80%) or higher for each billing period.
- Increasing the volume of impressions transacted in Ad Exchange will help publishers make more revenue and reduce the need for complicated technology setups.
- This new optimization technique will adjust Google's revenue share on a per query basis, but we will maintain your contracted revenue or end with a reduction in our revenue share during each billing period.
- You may choose to opt-out of revenue share based optimizations in the AdX UI. If you opt-out we will apply your contracted revenue share to every Open Auction query and you will not benefit from the increased revenue from this optimization

2. Communication Schedule

Sell-side

- Week of May 30th: Sales trainings
- June 13th, 2016: Launch announcement in the [Help center release notes](#).
- June 14th, 2016: DRS feature toggle expected to go live in the UI. We will display a butter bar in the AdX UI of all AdX publishers to inform them about the new functionality (butter bar will be displayed until August 1st). The check box in the UI will be unchecked by default meaning DRS is active by default, but it will not be doing anything yet. Pubs have until August 1st, 2016 to opt out of DRS (which requires them to check the box in the UI) which will also opt them out of DRS v1.
- August 1st, 2016: The toggle will start going into effect. DRS v2 will start working for any publisher who has not opted out. Publishers can continue to opt out via the UI even after this date by checking the box in the UI.

Buy-side

- No outreach to buyers is planned, but internal teams will be informed about DRS, and questions can be handled reactively.

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Product Overview

Owner: PM

3. Description and Features (INTERNAL ONLY)

- DRS v2 changes the AdX revenue share per-query in order to maximize match rate while maintaining a Google share of 20% (or the Open Auction contracted share). DRS v1 reduced Google's share while increasing revenue and profit, v2 brings the share back to standard for a further profit and slight revenue increase. With tDRS, we decide on Google's revenue share before seeing buyer bids.
- A buyer that submits a bid that would not win if the full Google share was subtracted, will be given the chance to win with DRS.
 - For example, with a 20% revenue share to Google, a \$1 bid can clear a \$0.8 publisher floor. With DRS, a bid of \$0.9 can be cleared at an 11% share.
- The result is that on some queries we close at a more favorable price for the buyer. This is then offset by closing at a more favorable price for the publisher on other queries.
- Buyers are never charged more than their bid, sellers are always paid at least their reserve
- DRS v2 applies to all of AdX and has nothing to do with EDA or backfill:
 - DFP + AdX pubs
 - AdX only pubs
 - AdSense publishers are **not** included
- DRS v2 applies only to Open Auction queries, deals revenue shares are not affected and bids on deals cannot benefit from DRS v2.

Comment [1]: [REDACTED]
Does DRS v2 have any influence on DA against price priority and/or HB line items in DFP?
Thanks!
Assigned to [REDACTED]

4. Feature/Product Release Schedule

- Target GA Date: June 2016
 - GA features: See section 3
 - GA success metric:

- [REDACTED],
[REDACTED]
- [REDACTED]
[REDACTED]

Sales & Services Overview

Owner: gTech, Sales (RPS)

5. Feature Enablement - General Availability

- Any publisher will see the toggle in their UI starting June 14th, 2016. Publishers will be opted in by default (meaning the check box in the UI will be unchecked). The toggle will live on the AdX admin page.
- Starting 08/01/2016, the toggle will start affecting revenue and publishers will have 2 options:
 - Publisher opts out: DRS v1 will be deactivated and DRS v2 will not take effect, the publisher might see a decrease in revenue.
 - Publisher remains opted in: DRS v1 + DRS v2 will take effect and increase publisher revenue.

6. Escalation Process / Services Support

- Escalation process:
 - Check this internal dashboard. If revenue lift is negative over the course of 1 week,

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please use [go/bugspray](#) for any escalations

Legal Overview

Owner: Legal

Redacted - Privilege

Resources

Owner: Commercialization Lead

8. External talking points (verbal & reactive only)

Our goal has always been to help publishers and advertisers thrive and create sustainable businesses. For many years Google has used optimization and machine learning techniques to improve the performance of our ads products, and now we're happy to share that we've been extending those techniques to DoubleClick Ad Exchange customers.

As programmatic buying has grown publishers have created complex yield management setups with cascading price floors, waterfalls, and even implementations that offer the same query repeatedly to multiple buyers just to find out the price they could pay. This can lead to lost revenue, increased user latency, and decreased advertiser performance. We think there are better ways to increase publisher yield.

By using machine learning optimizations we plan to help publishers reduce the complexity of their ad technology setups by helping them make the most revenue possible from DoubleClick Ad Exchange.

Value Proposition

- *Revenue share based optimizations help publishers make more revenue in the Ad Exchange Open Auction by adjusting Google's revenue share up or down to increase the volume of impressions with a winning buyer while always achieving the publisher's contracted revenue share (typically 80%) or higher for each billing period.*
- *Increasing the volume of impressions transacted in Ad Exchange will help publishers make more revenue and reduce their reliance on complicated technology setups.*
- *This new optimization technique will adjust Google's revenue share on a per query basis, but we will maintain your contracted revenue or end with a reduction in our revenue share during each billing period.*
- *You may choose to opt-out of revenue share based optimizations in the AdX UI. If you opt-out we will apply your contracted revenue share to every Open Auction query and you will not benefit from the increased revenue from this optimization.*

9. Reactive messaging (approved for written & reactive communication)

****** THIS DOC IS INTERNAL ONLY, DO NOT SHARE EXTERNALLY ******

To optimize the auction for the purpose of maximizing publisher revenue and buyer return on investment, we're continually exploring changes in DoubleClick Ad Exchange.

With the per-query revenue share optimization control in the admin tab of your account, we give you the possibility to enable or disable revenue share based optimizations.

If you don't check the box in the admin, Ad Exchange may increase or decrease revenue share per query to increase overall payout. In all cases, we keep your revenue share to your contracted share or more over a billing period.

If you check the checkbox, each ad request from this network to Ad Exchange will pay at least the contracted revenue share. Selecting this disables revenue share based optimizations and reduces Ad Exchange yield.

If you're interested in knowing the estimated revenue lift from this optimization, please contact your Account Manager.

10. FAQ (OK to share externally in reactive & verbal communication, read closely for questions marked as INTERNAL ONLY)

BUY SIDE (INTERNAL ONLY)

Q: What is the benefit to buyers?

A: Revenue share based optimizations increase match rate and provide buyers more access to seller inventory with high floors.

Q: Will information be shared with buyers about how many additional impressions they won thanks to revenue share based optimizations?

A: Not at this time, there are only plans to share revenue lift information with sellers in order to increase adoption.

Q: How does adjusting the revenue share per-auction lead to more revenue?

A: Lowering the revenue share increases match rate - more transactions result in more revenue.

Q: Can buyers opt out?

A: Revenue share based optimizations are controlled by sellers only.

Q: Will revenue share based optimizations have the potential to raise the reserve price on an impression for a buyer to make up for a previous auction won by another buyer where it accepted a reduced revenue share? Could one buyer subsidize another?

A: No, each buyer will make up their own revenue share on publishers who have opted in to revenue share based optimizations.

Q: Will anything about revenue share based optimizations be communicated in the bid request?

A: There is no information about this optimization in the bid request.

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Q: Previously I saw impressions clear at a transaction price less than the reserve price in the bid request. I no longer see this happening. What changed?

A: Over the course of July, we ramped up a new model for revenue share based optimizations. With the new model, we determine Google's revenue share before seeing buyer bids, and auctions will no longer clear below the floor in the RTB callout. Before or after the July change, we still do NOT pay publishers below publisher's floor, and only floor revealed to the buyer is changed. We believe this change will make DRS more sustainable and better for buyers and publishers in the long run.

SELL SIDE

Q: Is this opt-in or opt-out for the publisher?

A: When we launch the toggle it will be opted in by default for all AdX pubs, but will not be doing anything initially. Publishers have 3+ weeks to opt out of DRS. Starting 08/01/2016 the toggle will start going into effect and DRS v2 will start working for any publisher who has not opted out. Publishers can continue to opt out via the UI even after this date.

Q: Will this apply to all types of transactions or open auction only?

A: DRS is Open Auction only.

Q: What percentage of Impressions will be affected by DRS on average?

A: [REDACTED]

Q: Is there any difference in reports (Query Tool) when DRS is enabled

A: Impressions created due to DRS show up as normal in QT, and there is no difference in reporting.

Q: Is the Publisher able to opt out/opt in after the 3+ weeks "decision time"

A: Yes, publishers will still be able to opt out or opt back in after the toggle has started going into effect. Independently of the moment when a Publisher opts out - if they decide to do so - their rev share will be at least 80% at any point.

THE FOLLOWING QUESTIONS & ANSWERS ARE INTERNAL ONLY!

Q: Where can I can find reporting on DRS for my publisher? [INTERNAL ONLY!]

A: There are no external reports available, but we have an internal dashboard you can access here to check the performance of DRS on your client. It is OK to share the per-publisher revenue impact with your client, but please remember that DRS is not an external name - **refer to "revenue share based optimizations" as in the release notes.**

Note: Revenue numbers on the dashboard are net (i.e. after applying Google's rev share).

Q: Can the pub expect increased rev share after the launch of v2 compared to v1? [INTERNAL ONLY!]

A: No, but we will not make an external distinction between v1 and v2. The new control is for all revenue share optimizations, and so opting out will also remove v1 (with a gradual ramp down). In all cases we keep publisher revenue share to the contracted share or more over a billing period.

Q: How does DRS interact with Optimized Pricing? Is the logic that Optimized Pricing sets a floor completely independently of DRS and then DRS subsequently adjusts the rev share if necessary taking into account the floor (i.e. sequential decisioning), or is the decisioning more parallel between the two mechanisms? [INTERNAL ONLY!]

Comment [2]: [REDACTED]

I added a question / answer to the DRS comms doc for reactive comms to AdX buyers. Feel free to edit / add to it.

Comment [3]: [REDACTED]

Kat - DRS - can you confirm if the revenue numbers are NET?

Comment [4]: [REDACTED]

Comment [5]: Any thoughts on whether the numbers are net (or gross)?

Comment [6]: [REDACTED]

[REDACTED], can you confirm this..?

Comment [7]: do you mean before or after Google revshare has been taken? if so, those numbers are after we subtract Google's revshare.

Comment [8]: Indeed, I was referring to net (after taking Google rev share). Thanks [REDACTED] for the confirmation!!

Comment [9]: Might be good to note that revenue numbers are net on the dashboard itself. I will add a similar note here on the comms doc.

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A: The Optimized pricing and DRS interaction is "sequential" - a floor is set by RPO (or any other mechanism such as the pub rule), then we determine if DRS can be used on the query.

[REDACTED]

Q: Will DRS maintain publisher floor CPMs?

A: DRS does not change floors, only the Revenue Share Google takes on bids. Publishers are always paid at least the minimum CPM they specify in AdX.

Q: Does DRS apply to AdX bid requests coming from competitors [REDACTED]?

Yes.

10. Important Links

- Dashboard
 - [DRS per pub dash](#)
- Help center
 - [AdX auction model article for AdX sell-side and for AdX buy-side](#) [will be updated for GA]
 - [HC article for UI opt-in](#)
- Sales
 - [Sales Training deck](#)
 - [DRS v1 reactive comms](#) (Q2/2015)